Fig_1

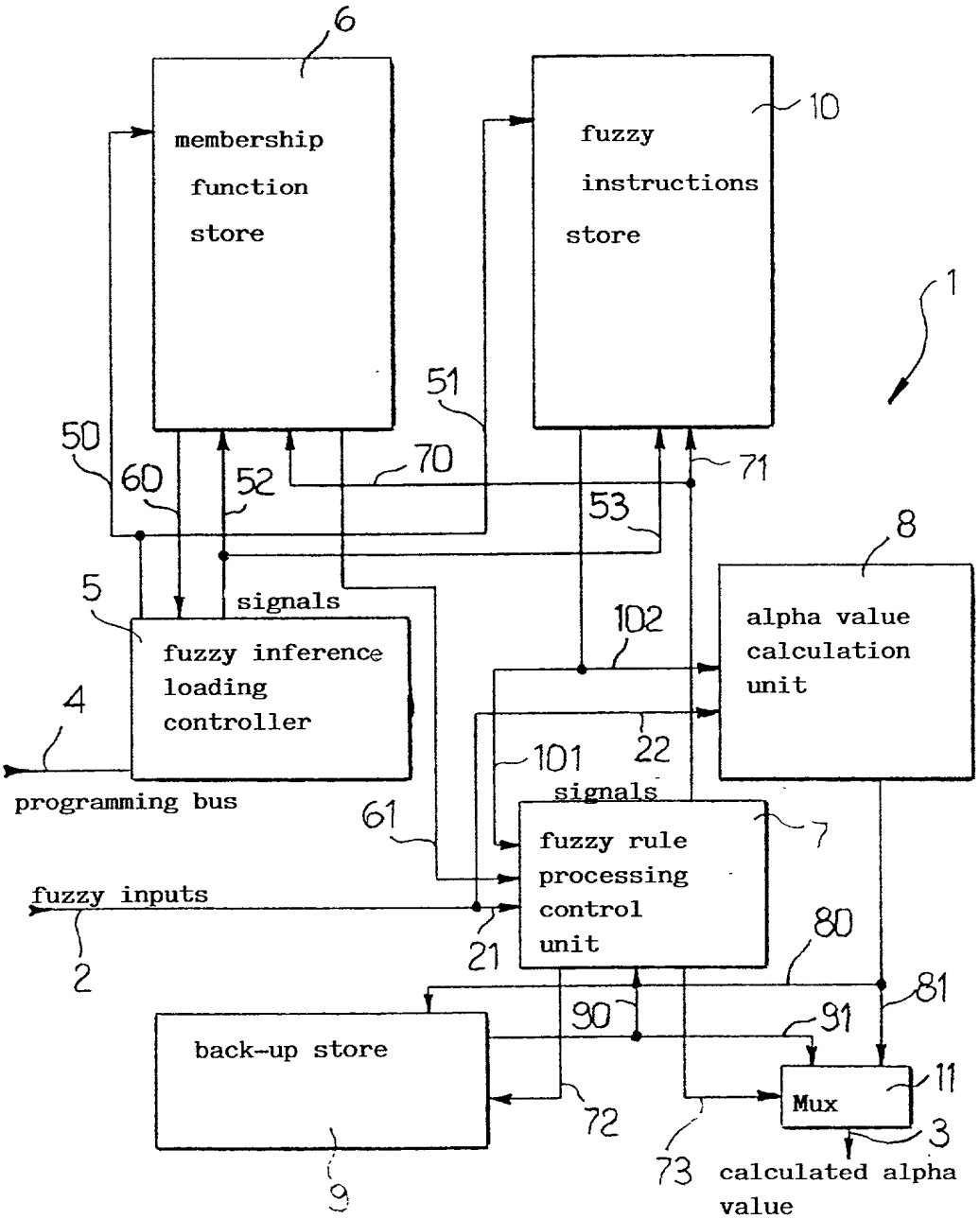

6
membership function store
10
fuzzy instructions store
1
51
50
60
52
70
71
53
8
5
signals
fuzzy inference loading controller
102
alpha value calculation unit
4
programming bus
101
22
signals
61
fuzzy rule processing control unit
7
fuzzy inputs
2
21
80
81
90
91
back-up store
11
Mux
72
3
73
calculated alpha value
9

Fig_2

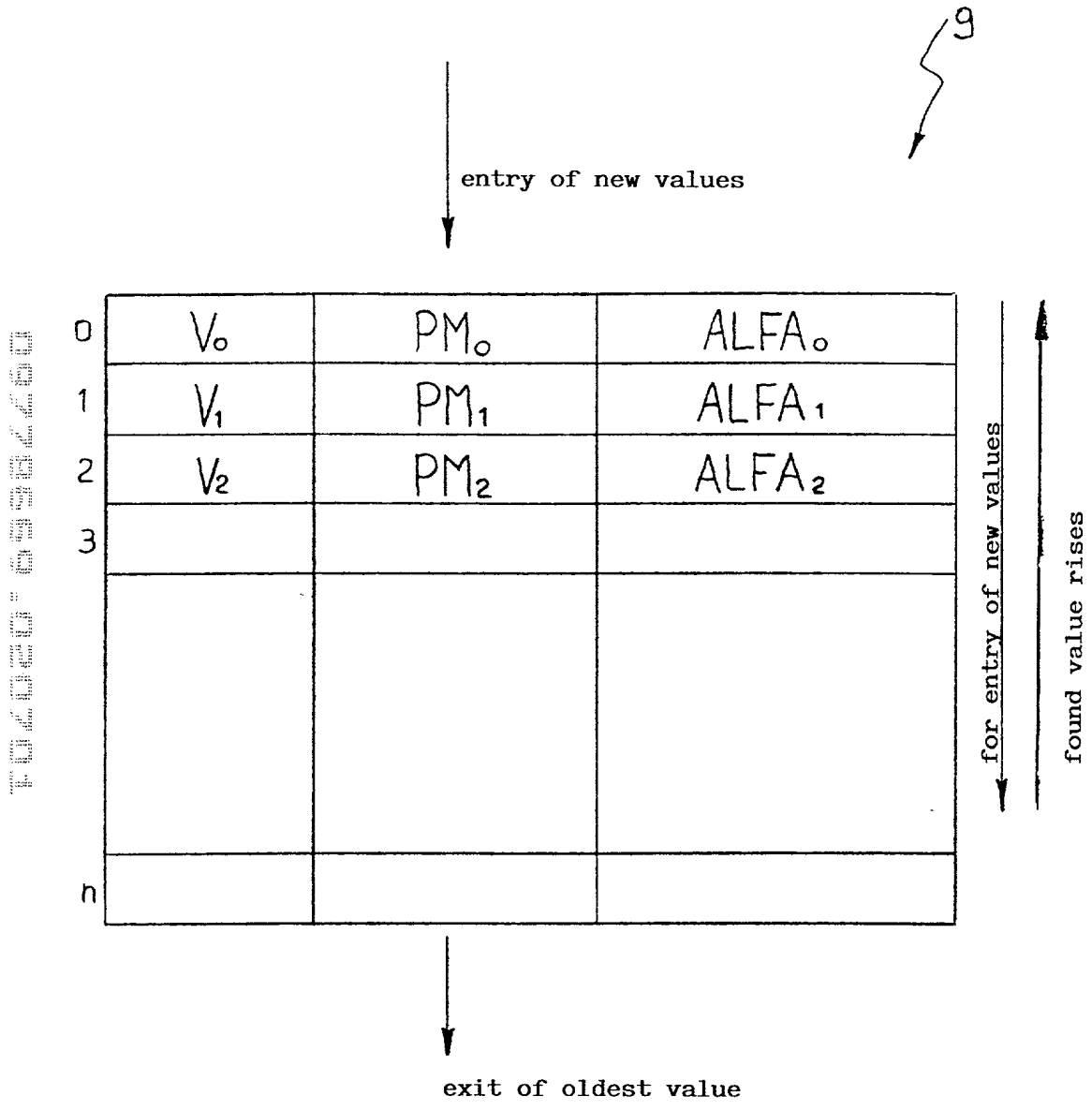

9
entry of new values
0
1
2
3
n
V0
V1
V2
PM0
PM1
PM2
ALFA0
ALFA1
ALFA2
for entry of new values
found value rises
exit of oldest value

Fig_3

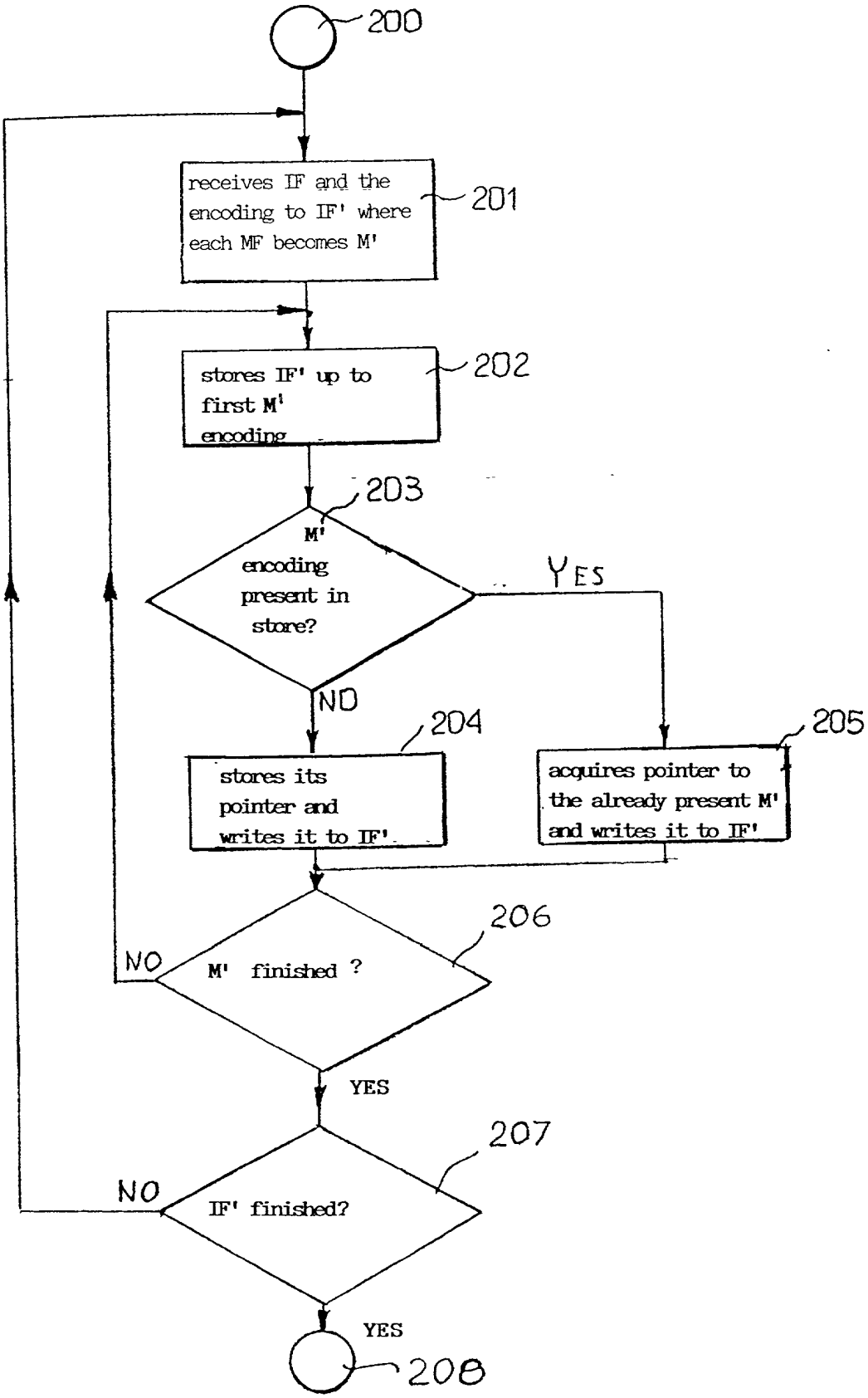
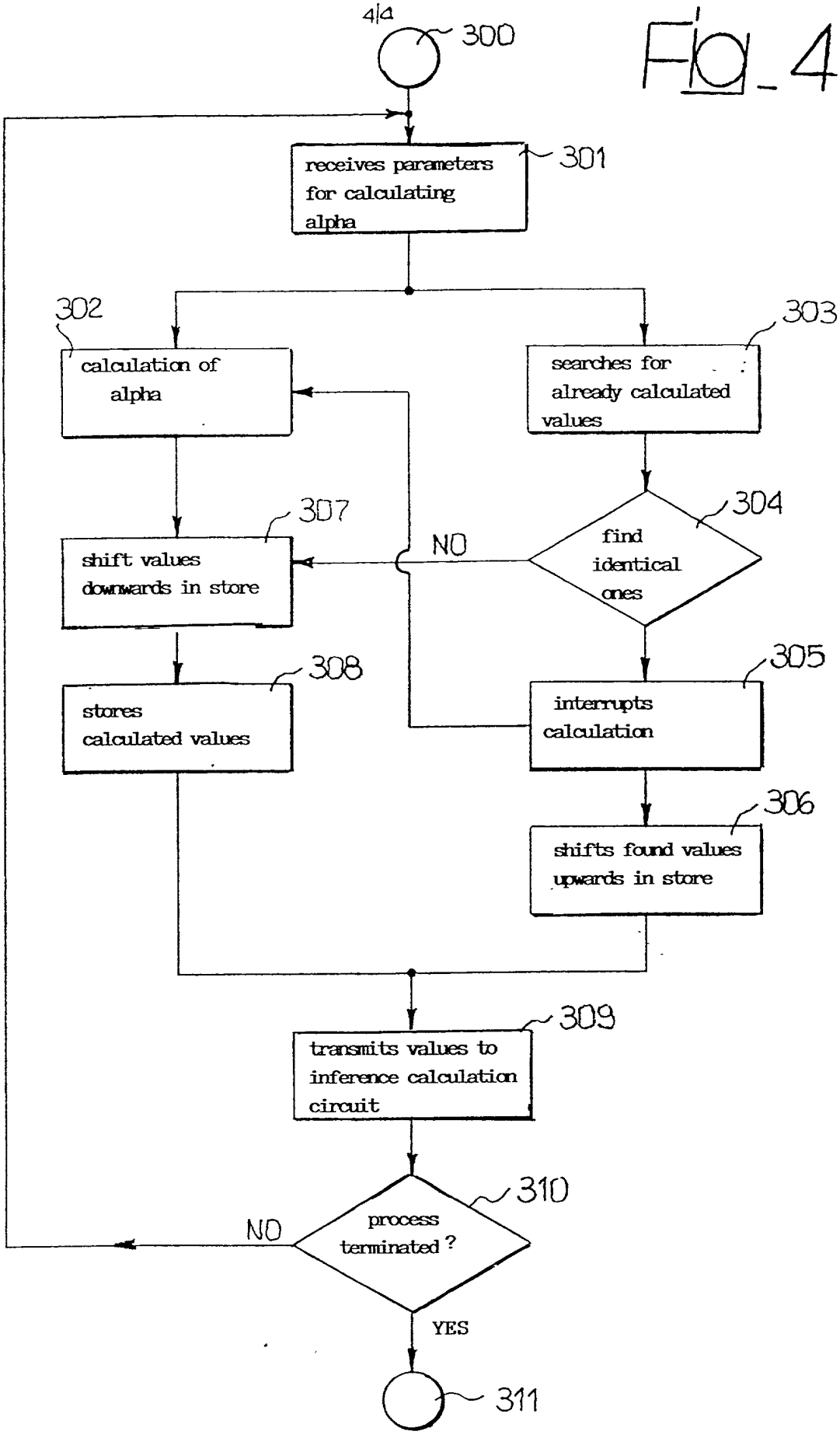

200
receives IF and the encoding to IF' where each MF becomes M'
201
stores IF' up to first M' encoding
202
203
M' encoding present in store?
YES
NO
204
stores its pointer and writes it to IF'
205
acquires pointer to the already present M' and writes it to IF'
206
M' finished ?
NO
YES
207
IF' finished?
NO
YES
208

Fig_4


300
receives parameters for calculating alpha
301
302
calculation of alpha
303
searches for already calculated values
304
find identical ones
NO
307
shift values downwards in store
308
stores calculated values
305
interrupts calculation
306
shifts found values upwards in store
309
transmits values to inference calculation circuit
310
process terminated ?
NO
YES
311